

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re the Application of PETER BRAMS

Group Art Unit: 1642

Application No.: 09/805,217

Examiner: Larry Helms

Filed: March 14, 2001

For: ANTIBODIES THAT BIND PHOSPHATIDYL SERINE AND A METHOD OF THEIR  
USE

INFORMATION DISCLOSURE STATEMENT


Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, the attention of the U.S. Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of the first official action on the merits, and before the mailing date of a final rejection or notice of allowance. Enclosed on the accompanying transmittal form is the authorization to charge the amount required pursuant to 37 CFR 1.17(p) to the undersigned's firm deposit account.

Respectfully Submitted,

  
Thomas A. Cawley, Jr., Ph.D.  
Registration Number 40944  
Customer Number: 5272

Date: October 16, 2003  
PILLSBURY WINTHROP LLP  
Telephone: (703) 905-2000  
Facsimile: (703) 905-2500  
P.O. Box 10500  
McLean, VA 22102  
TAC/JBM:ntb

10/21/2003 NROCHA1 00000002 033975 09805217

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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

Applicant: Peter BRAMS

Appln. No.: 09/805,217

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Examiner: L. Helms

Group Art Unit: 1642

Date: October 16, 2003

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## **U.S. PATENT DOCUMENTS**

Examiner's Initials*		Document Number	Date MM/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR	6,020,153	02/2000	Hardman et al.			
	BR						
	CR						
	DR						

## **FOREIGN PATENT DOCUMENTS**

		Document Number	Date MM/YYYY	Country	Inventor Name		English Abstract	Translation Readily Available
							Enclosed	No
	ER	WO 99/33522		PCT				
	FR							

## **OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)**

	GR	Umeda et al., "Effective production of monoclonal antibodies against phosphatidylserine: Stereo-specific recognition of phosphatidylserine by monoclonal antibodies," <i>J Immunol.</i> , 1989, 143(7):2273-2279.			
	HR	Bakimer et al., "Antiphospholipid syndrome and the idiotypic network," <i>Lupus.</i> , 1995, 4:204-208.			
	IR	Miyazawa et al., "Monoclonal antibody analysis of phosphatidylserine and protein kinase C localizations in developing rat cerebellum," <i>J Neurochem.</i> , 1992, 59(4):1547-1554.			
	JR	Hosomi et al., "Simple purification method of the antiphospholipid antibody from normal human plasma," <i>Exp. Clin. Immunogenetics</i> , 1997, 14:281-285.			
	KR	Adler et al., "Monoclonal antiphosphatidylserine antibody inhibits intercellular fusion of the choriocarcinoma line, JAR," <i>Biol. Reprod.</i> , 1995, 53:905-910.			
	LR	Reza et al., "Anti-idiotypic monoclonal antibody recognizes a consensus recognition site for phosphatidylserine in phosphatidylserine-specific monoclonal antibody and protein kinase C," <i>FEBS</i> , 1994, 339(3):229-33.			
	MR	Igarashi et al., "Specific binding of a synthetic peptide derived from an antibody complementarity determining region to phosphatidylserine," <i>J Biochem.</i> , 1995, 117(2):452-7.			
	NR	Mitchison, "The carrier effect in the secondary response to haptenprotein conjugates," <i>Eur. J. Immunol.</i> , 1971, 1:18-25.			
	OR	Claman and Chaperon, "Immunologic complementation between thymus and marrow cells -- a model for the two-cell theory of immunocompetence," <i>Transplant Rev.</i> , 1969, 1:92-119.			
	PR	Katz et al., "Cell interactions between histoincompatible T and B lymphocytes. The H-2 gene complex determines successful physiologic lymphocyte interactions," <i>Proc. Natl. Acad. Sci. USA</i> , 1973, 70:2624-2629.			
	QR	Raff et al., "Role of thymus-derived lymphocytes in the secondary humoral immune response in mice," <i>Nature</i> , 1970, 226:1257-1260.			

	RR	Fadok et al., "Exposure of phosphatidylserine on the surface of apoptotic lymphocytes triggers specific recognition and removal by macrophages," <i>J. Immunol.</i> , 1992, 148:2207-2216.				
	SR	Martin et al., "Early redistribution of plasma membrane phosphatidylserine is a general feature of apoptosis regardless of the initiating stimulus: inhibition by overexpression of Bcl-2 and Abl," <i>J. Exp. Med.</i> , 1995, 182:1545-1556.				
	TR	Koopman et al., "Annexin V for flow cytometric detection of phosphatidylserine expression on B cells undergoing apoptosis," <i>Blood</i> , 1994, 84:1415-1420.				
	UR	Utsugi et al., "Elevated expression of phosphatidylserine in the outer membrane leaflet of human tumor cells and recognition by activated human blood monocytes," <i>Cancer Res.</i> , 1991, 51:3062-3066.				
	VR	VanDeWater et al., "Tumor cell generation of thrombin via functional prothrombinase assembly," <i>Cancer Res.</i> , 1985, 45:5521-5525.				
	WR	Sugimura et al., "Annexin V as a probe of the contribution of anionic phospholipids to the procoagulant activity of tumour cell surfaces," <i>Blood Coagul. Fibrin.</i> , 1994, 5:365-373.				
	XR	Rao et al., "Binding of annexin V to a human ovarian carcinoma cell line (OC-2008). Contrasting effects on cell surface factor VIIa/tissue factor activity and prothrombinase activity," <i>Thromb. Res.</i> , 1992, 67:517-531.				
	YR	Zwaal et al., "Pathophysiologic implications of membrane phospholipid asymmetry in blood cells," <i>Blood</i> , 1997, 89:1121-1132.				
	ZR	Zwaal et al., "Loss of membrane phospholipid asymmetry during activation of blood platelets and sickled red cells; mechanisms and physiological significance," <i>Mol. Cell Biochem.</i> , 1989, 91:23-31.				
	AAR	Bervers et al., "Changes in membrane phospholipid distribution during platelet activation," <i>Biochim. Biophys. Acta</i> , 1983, 736:57-66.				
	BBR	Qu et al., "Phosphatidylserine-mediated adhesion of T-cells to endothelial cells," <i>Biochem J.</i> , 1996, 317:343-346.				
	CCR	Katsuragawa et al., "Monoclonal antibody against phosphatidylserine inhibits in vitro human trophoblastic hormone production and invasion," <i>Biol Reprod.</i> , 1997, 56:50-58.				
	DDR	Katsuragawa et al., "Monoclonal antiphosphatidylserine antibody reactivity against human first-trimester placental trophoblasts," <i>Am. J. Obstet. Gynecol.</i> , 1995, 172:1592-1597.				
	EER	Rand et al., "Reduction of annexin-V (placental anticoagulant protein-I) on placental villi of women with antiphospholipid antibodies and recurrent spontaneous abortion," <i>Am. J. Obstet. Gynecol.</i> , 1994, 171:1566-1572.				
	FFR	Savill et al., "Phagocyte recognition of cells undergoing apoptosis," <i>Immunol. Today</i> , 1993, 14:131-136.				
	GGR	Hannun et al., "Apoptosis and the dilemma of cancer chemotherapy," <i>Blood</i> , 1997, 89:1845-1853.				
	HHR	Fadok et al., "Apoptosis: getting rid of the bodies," <i>Current Biology</i> , 1998, 8(19):R693-5.				
	IIR	Asherson et al., "Antiphospholipid syndrome," <i>J. Invest. Dermatol.</i> , 1993, 100:21S-27S.				
	JJR	Mackworth-Young et al., "Antiphospholipid antibodies: more than just a disease marker?" <i>Immunol. Today</i> , 1990, 11:60-65.				
	KKR	Matsuura et al., "Anticardiolipin cofactor(s) and differential diagnosis of autoimmune disease," <i>Lancet</i> , 1990, 336:177-178.				
	LLR	Roubey et al., "Autoantibodies to phospholipid-binding plasma proteins: a new view of lupus anticoagulants and other "antiphospholipid" autoantibodies," <i>Blood</i> , 1994, 84:2854-2867.				
	MMR	Triplett et al., "Antiphospholipid-protein antibodies: laboratory detection and clinical relevance," <i>Thromb. Res.</i> , 1995, 78:1-31.				
	NNR	Becker et al., "Antiphospholipid syndrome associated with immunotherapy for patients with melanoma," <i>Cancer</i> , 1994, 73:1621-1624.				
	OOR	Naldi et al., "Antiphospholipid antibodies and melanoma: a link?" <i>Dermatology</i> , 1992, 184:156.				

PPR	Herstoff et al., "Cutaneous lupus erythematosus associated with melanoma and BCG vaccine therapy," <i>Archives of Dermatology</i> , 1979, 115:856-859.				
QQR	Fishman et al., "Vitiligo autoantibodies are effective against melanoma", <i>Cancer</i> , 1993, 72:2365-2369.				
RRR	Diaz et al., "Synthesis of disulfide-containing phospholipid analogs for the preparation of head group-specific lipid antigens: generation of phosphatidylserine antibodies," <i>Bioconjug Chem.</i> , 1998, 9:250-254.				
SSR	Pagano et al., "Lipid traffic in eukaryotic cells: mechanisms for intracellular transport and organelle-specific enrichment of lipids," <i>Current Opinion in Cell Biology</i> , 1990, 2:652-663.				
TTR	Tang et al., "A subfamily of P-type ATPases with aminophospholipid transporting activity," <i>Science</i> , 1996, 272:1495-1497.				
UUR	Connor et al., "Exposure of phosphatidylserine in the outer leaflet of human red blood cells. Relationship to cell density, cell age, and clearance by mononuclear cells," <i>J. Biol. Chem.</i> , 1994, 269:2399-2404.				
VVR	Boas et al., "Phosphatidylserine exposure and red cell viability in red cell aging and in hemolytic anemia," <i>Proc. Natl. Acad. Sci. (USA)</i> , 1998, 95:3077-3081.				
WWR	Geldwerth et al., "Transbilayer mobility and distribution of red cell phospholipids during storage," <i>J. Clin. Invest.</i> , 1993, 92:308-314.				
XXR	Morrison et al., "Chimeric human antibody molecules: Mouse antigen-binding domains with human constant region domains," <i>Proc. Natl. Acad. Sci. USA</i> , 1984, 81:6851-5.				
YYR	Morrison et al., "Genetically engineered antibody molecules," <i>Adv. Immunol.</i> , 1988, 44:65-92.				
ZZR	Verhoeyen et al., "Reshaping human antibodies: grafting an antilysozyme activity," <i>Science</i> , 1988, 239:1534-1536.				
AAAR	Padlan, "A possible procedure for reducing the immunogenicity of antibody variable domains while preserving their ligand-binding properties," <i>Molec. Immun.</i> , 1991, 28:489-498.				
BBBR	Padlan, "Review: Anatomy of the antibody molecule," <i>Molec. Immun.</i> , 1994, 31:169-217.				
CCCR	Brams et al., "In vitro B-lymphocyte antigen priming against both non-immunogenic and immunogenic molecules requiring low amounts of antigen and applicable in hybridoma technology," <i>J. Immunol. Methods</i> , 1987, 98:11-22.				
DDDR	Balasubramanian et al., "Immune clearance of phosphatidylserine-expressing cells by phagocytes. The role of beta2-glycoprotein I in macrophage recognition," <i>J. Biol. Chem.</i> , 1997, 272:31113-31117.				
EEER	Elliot et al., "Amino acid sequence diversity in mouse $\lambda$ 2 variable regions," <i>J. Immunol.</i> , 1984, 133:2757-2761.				
FFFR	Gefter et al., "Analysis of the anti-azobenzene arsonate response at the molecular level," <i>Ann. Immunol. (Inst. Pasteur)</i> , 1984, 135 C:17-30.				

Examiner

Date Considered:

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.